



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/370,981	08/10/1999	YUICHIRO OGAWA	104018	8747

7590 02/13/2002  
OLIFF & BERRIDGE PLC  
P O BOX 19928  
ALEXANDRIA, VA 22320

EXAMINER

FISCHER, JUSTIN R

ART UNIT	PAPER NUMBER
----------	--------------

1733

DATE MAILED: 02/13/2002

10

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/370,981

Applicant(s)

OGAWA, YUICHIRO

Examiner

Justin R Fischer

Art Unit

1733

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 03 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4 and 6-10 is/are pending in the application.
- 4a) Of the above claim(s) 6-8 and 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,4 and 9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) ✓
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

Art Unit: 1733

### **DETAILED ACTION**

1. Claims 3 and 5 are cancelled per Amendment A dated December 3, 2001.

### **Election/Restrictions**

2. Newly submitted claim 10 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: as outlined in Paper No. 5, claim 10 (originally non-elected claim 5) is directed toward an embodiment in which the cord extends from an outside to an inside of the tire, while the elected claims are directed toward an embodiment in which the cord extends from an inside to an outside of the tire. In this instance, it is clearly evident that these inventions represent multiple species of the generic claim, each having a unique and separate means for establishing patentability (despite the depiction of both embodiments in a single reference). As such, the FINAL requirement outlined in Paper No. 5 is maintained.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 10 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 1733

4. Claims 1, 2, 4, and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gojo (JP 3-243404, newly cited) in view of Ueyoko (5,885,387, of record). As best depicted in Figure 1 of Gojo, the reference depicts a heavy-duty, pneumatic tire structure having a pair of bead cores (2,3) in each bead portion such that they are adjacent to each other in the widthwise direction. The reference also depicts a carcass structure (9) having a roundtrip return portion that is sandwiched between said pair of bead cores in each bead portion and extends from an inside toward an outside of the tire. Furthermore, though the reference does not describe the construction of said bead cores, it is clearly evident from Figure 1 of Gojo that both the auxiliary (3) and main (2) bead cores have a conventional bead structure in which one or more steel wires are arranged lengthwise and widthwise in radial and widthwise (axial) directions of the tire. However, the reference, in describing the carcass structure, is completely silent with respect to the use of a single, continuous cord. Ueyoko, on the other hand, describes a heavy-duty, pneumatic tire construction in which an endless carcass cord ply is employed. The use of such a carcass structure increases the bead durability and contributes to the reduction of tire weight, both of which are desirable in all tires. As such, it would have been obvious to one of ordinary skill in the art at the time of the invention to include the single, continuous cord structure in the carcass, as suggested by Ueyoko, in the general tire structure of Gojo, as set forth below.

With respect to claims 1, 2, and 4, Gojo clearly depicts a bead portion in which a carcass structure is sandwiched between two adjacent bead cores and extends from an inside toward an outside of the tire, such that a terminal part of said carcass structure

Art Unit: 1733

extends along an outer face of the axially outermost bead core. However, the reference is completely silent with respect to the carcass construction, though one of ordinary skill in the art at the time of the invention would have readily expected the carcass to be formed of several cords embedded in a rubber ply (presence of cut ends). In any event, Ueyoko, which is similarly directed to a heavy-duty tire, suggests the use of a single, continuous cord to form the carcass structure. Ueyoko states that such a carcass structure improves bead durability and contributes to the reduction of tire weight. Thus, the use of a single, continuous cord in the carcass structure of Gojo would have been readily appreciated by one of ordinary skill in the art at the time of the invention for the benefits detailed above.

Regarding claim 9, applicant requires that the roundtrip return portion of the carcass ply cord have multiple, overlapping terminal parts. Ueyoko, in describing this unique carcass design, discloses the use of a multiplicity of folding points, which is analogous to "multiple, overlapping terminal parts". The use of such a carcass design further enhances the bead durability, while promoting the weight reduction of the tire. The reference describes this turnup structure in Column 2, Line 10, saying the carcass cord ply is provided with a multiplicity of folding points arranged in the tire's circumferential direction at both outer ends of the cord ply. The turnup structure is additionally depicted in Figure 3.

### ***Response to Arguments***

5. Applicant's arguments with respect to claims 1-4 and 9 have been considered but are moot in view of the new ground(s) of rejection. In this instance, applicant has

Art Unit: 1733

contended that Southerawsky fails to describe the use of a continuous cord successively repeating roundtrip and further uses a carcass ply that is sandwiched between an additional carcass ply and a bead core. First, the carcass ply 120 has a turnup portion that can be viewed as being sandwiched between either (a) bead core 112B and carcass ply 118 or (b) bead core 112B and bead core 112A, among other possibilities. The term "sandwiched" is analogous to the term "between", and as such, the bead portion of Southerawsky clearly depicts a turnup structure that is between the respective bead cores, in accordance to the limitations of the claimed invention.

Regarding the second contention, the examiner agrees with applicant that Southerawsky fails to disclose the claimed carcass structure. However, Ueyoko has been used to illustrate the use of the claimed carcass design in order to enhance the bead durability and promote weight reduction of the tire.

Regarding Masclaux, applicant's arguments are analogous to those discussed in the preceding paragraph with respect to Southerawsky. It is acknowledged that Masclaux fails to disclose the claimed carcass structure in which a single, continuous cord is employed; however, Ueyoko clearly suggests the use of such a carcass design in a similar heavy-duty tire for the benefits detailed above

With respect to Ueyoko, applicant states that the reference fails to overcome the deficiencies of Southerawsky and Masclaux. Ueyoko, however, was not being supplied to identify the multiple bead core structure described by the claimed invention. The reference, though initially only used to suggest the multiple terminal parts, is now being

Art Unit: 1733

additionally relied upon to disclose the use of a single, continuous cord to form the carcass structure as set forth in the rejection above.

**Conclusion**


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Justin R Fischer** whose telephone number is **(703) 605-4397**. The examiner can normally be reached on M-F (7:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Ball can be reached on (703) 308-2058. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

  
Justin Fischer

February 8, 2002

  
Michael W. Ball  
Supervisory Patent Examiner  
Technology Center 1700